

IST8303
3D Magnetometer Sensor
Product Brief

1 General Description

The iSentek IST8303 is a 3-axis digital magnetometer sensor. It is an integrated chip with 3-axis magnetic sensors and controller ASIC. IST8303 provides an I2C digital output with fast mode up to 400kHz. The compact form factor is easy to surface mount for high-volume design and production.

Features

- Single chip 3-axis magnetic sensor
- I2C slave, Fast mode up to 400kHz
- Small form factor, 1.6x1.6x1.0mm, 12-pin BGA package
- Wide magnetic field range +/- 1600uT
- 14/16-bits data output
- Auto zero drift for anti magnetic interference
- Low power consumption
- Best performance/cost solution

Applications

Digital Compass
GPS/pedestrian Navigation
Augmented Reality Applications
Magnetometer

2 Block Diagram, Package Dimension and Application Circuit

2.1 Block diagram

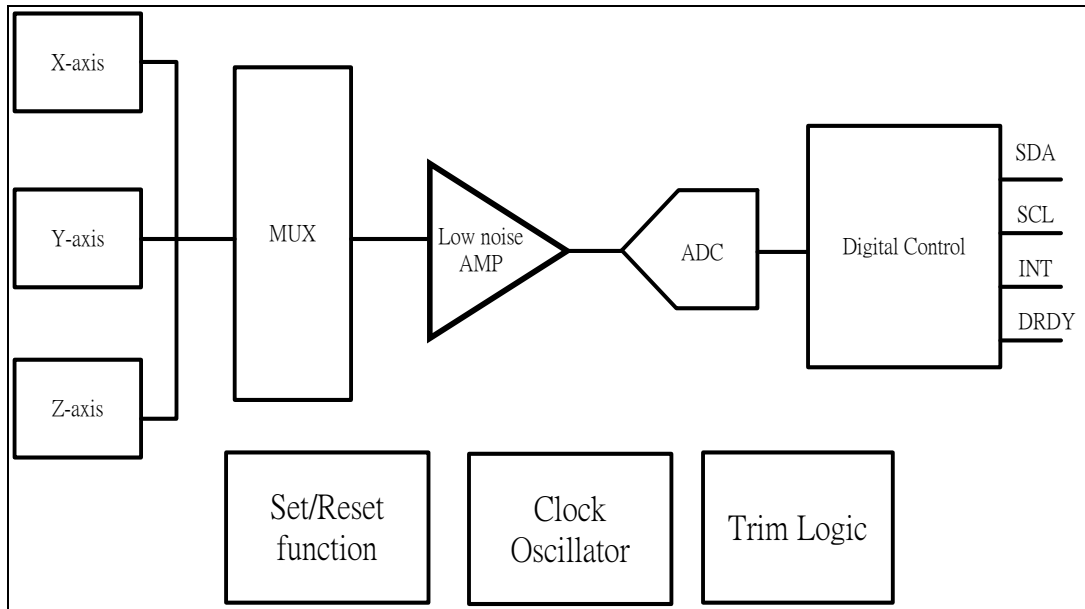
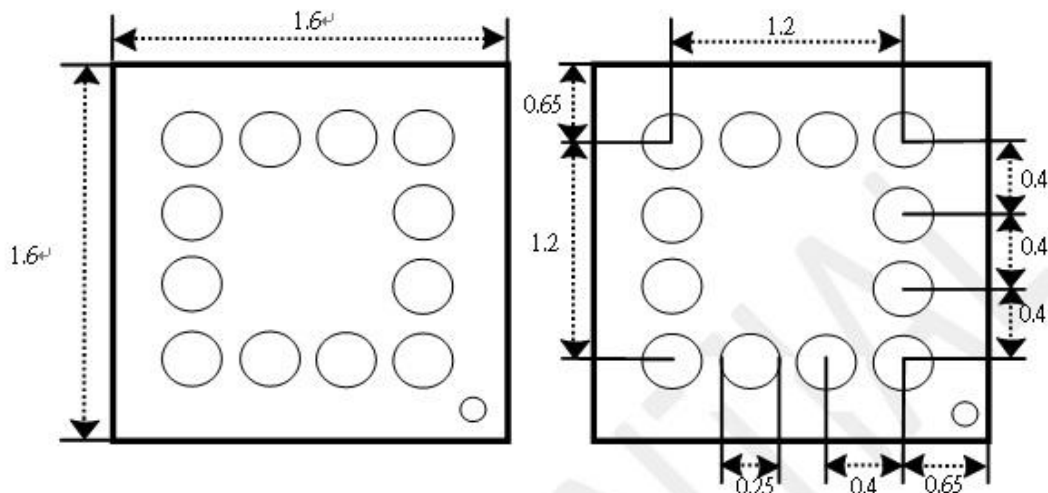


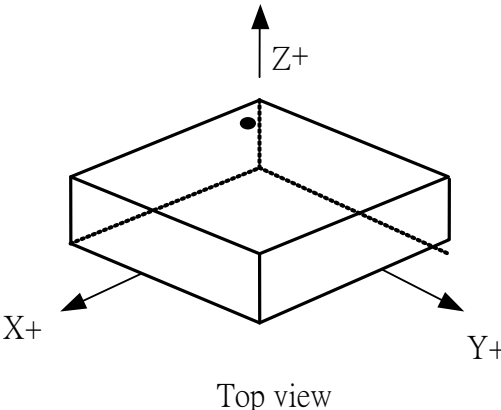
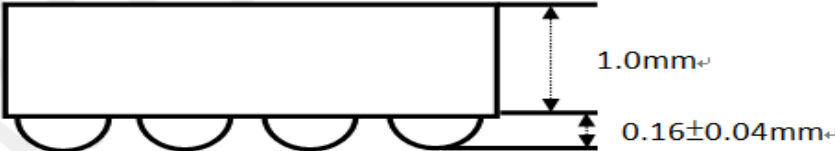
Figure 2-1 Block Diagram

2.2 Package Dimensions and Pin Description

IST8303 BGA Top view



IST8303 BGA Side View



Pin	Name	Function
A1	DRDY	Data ready
A2	NC	
A3	SCL	I2C serial clock
A4	SDA	I2C serial data
B1	AVDD	Regulator input, 2.4~3.6v
B4	VPP	OTP program power
C1	VSS	GND
C4	DVDD	Power for I/O, 1.8~AVDD
D1	CAD0	I2C Slave Address
D2	CAD1	I2C Slave Address
D3	C1	Set/Reset function
D4	RSTN	Reset

2.3 Application Circuit

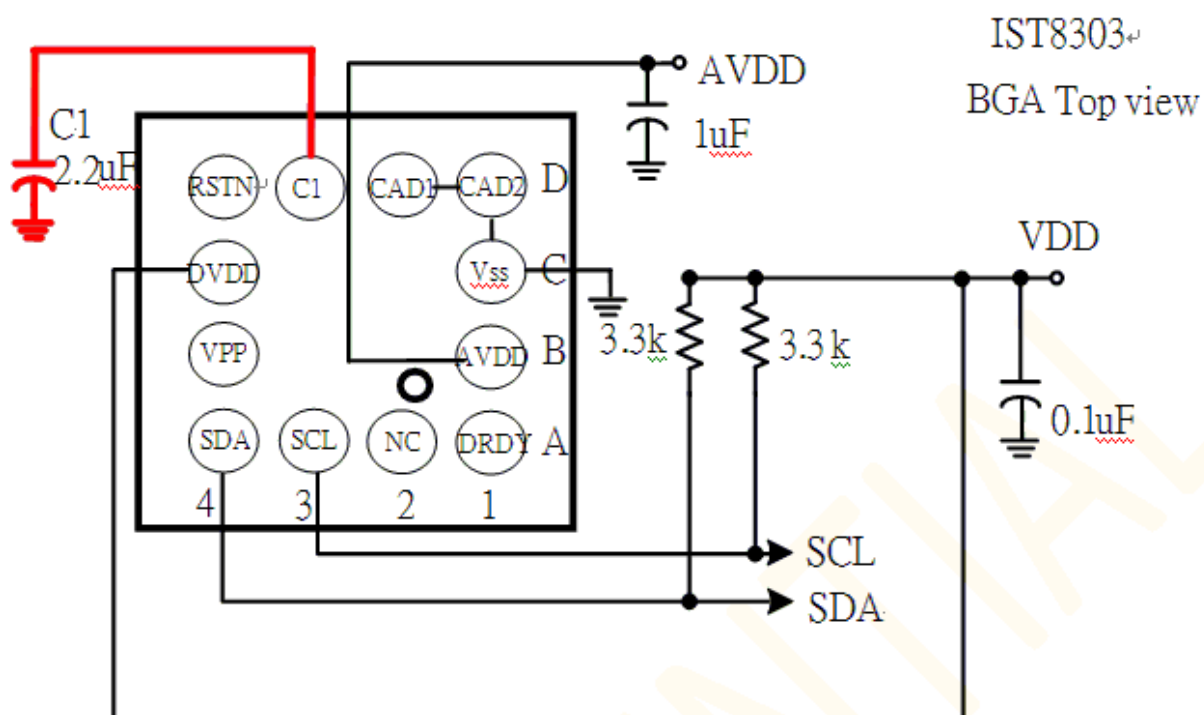


Figure 2-2 Application circuit